



Pro CrossTrainer Elite CrossTrainer



Service Manual



Table of Contents

Table of Contents	1
Preventive Maintenance.....	2
Settings - Maintenance Mode.....	3
Diagnostics - Display Codes	5
Diagnostics - LED Test	6
Diagnostics - Keypad Test.....	7
Diagnostics - Heart Rate Test, Measurements	8
Diagnostics - UB Calibration.....	9
Trouble Shooting - Incorrect Model Setting	10
Trouble Shooting - Noises : Pinging	11
Trouble Shooting - Noises : Bearings	14
Trouble Shooting - Excess Lateral UB Arm Movement.....	17
Part Installation Procedure - Shrouds.....	18
Part Installation Procedure - Keypad	21
Part Installation Procedure - LCB, Batt. And UB Board	23
Part Installation Procedure – Upper Crank Arm.....	27
CrossTrainer Parts List.....	30



Preventive Maintenance

To keep your Star Trac CrossTrainer in top condition, Star Trac strongly recommends performing regular daily, weekly and monthly preventive maintenance routines outlined below.

Daily Maintenance

- Remove excessive accumulations of dust, dirt and other substances by using a clean, soft cloth and a non-abrasive liquid cleaner, such as Formula 409™ or FANTASTIK™. Wipe down the exterior of the display panel, upper body arms, pedals, shrouds and heart rate grips.

Note: Do not spray directly on the display or heart rate grips. Spray on the cloth first.



Weekly Maintenance

Perform the following services each week:

- Vacuum the floor under and around the CrossTrainer. Move the unit to another spot, if necessary, to vacuum thoroughly.
- Inspect the screws (i.e. display panel mounting screws) for security, and retighten if necessary.
- Inspect the display panel keypads for wear.

Monthly Maintenance

Perform the following services each month, or as needed:

- Check that the pedals and shrouds are secure.
- Check the upper body arms for looseness. Tighten screws when necessary.
- Check for smooth and quiet operation of all moving parts.



Settings - Maintenance Mode

The Maintenance Mode allows you to query and modify the basic settings of the Star Trac CrossTrainer.

Engaging Maintenance Mode

1. Press and hold the ,  and  keys together.
2. A beep will sound and the “MAINTENANCE MODE” will display momentarily in the information window.
3. Release all keys. “SERIAL NO XXXXX” will display in the information window.

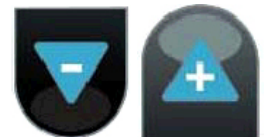
Modifying the Maintenance Mode

The following keys are used to modify Maintenance Settings:

Upper and Lower Data Information Window SCROLL keys: Display the next and previous settings.



Increase and Decrease Level Keys: Adjust the value of the displayed setting up and down respectively, in increments of 1 unit.



OK Key: Updates (saves) the value of the display setting in the Flash memory, and exits Maintenance Mode.



Maintenance Mode Settings

The items that you may display and change:
Default values set in ()

Serial Number	CrossTrainer serial number (0)
Date	Manufactures date for the CrossTrainer (07/03)
Display Vers 1	Display software version (N/A)
Display Vers 2	Display software version (N/A)
LCB Vers	LCB software version (N/A)
Units	English = units of pounds, miles, feet inches; (English) Metric = units of kilograms, kilometers, centimeters
Time	Maximum time in minutes allowed for program, excluding warm-up and cool-down (20)
Weight	Default (to user), typical weight in lb (UNITS=English) or kg (UNITS = Metric) (155 lbs, 70 KG)



Settings - Maintenance Mode (cont.)

Language	Language is English, Dutch, French, German, Spanish, Swedish, Italian or Katakana (English)
Model	PB-UB = Pro Bike Upright, PB-RB = Pro Bike Recumbent, Pro CT = Pro CrossTrainer, Elite CT = Elite CrossTrainer, Stepper = Pro Stepper
LCB Ver2	LCB hardware version (N/A)
CSAFE	Turns on/off CSAFE functionality (Off)
Auto Status	Turns on/off the unsolicited status of the CSAFE feature (Off)
Wall Power	Turns the wall power setting on/off (Off)
IRDA	Turns on/off infrared port functionality (Off)
OPER Hours	Total operating hours (0)
Quick Start	Number of times the Quick Start program was run since last reset (0)
Manual	Number of times the Manual program was run since last reset (0)
TB Begin	Number of times the Total Body – Beginner program was run since the last reset (0)
TB Inter	Number of times the Total Body – Intermediate program was run since the last reset (0)
TB Diff	Number of times the Total Body – Difficult program was run since the last reset (0)
Auto Pilot	Number of times the Auto Pilot program was run since the last reset (0)
IHR Pro	Number of times the Interval Heart Rate Control program was run since the last reset (0)
CHR Pro	Number of times the Constant Heart Rate Control program was run since last reset (0)
CW Pro	Number of times the Constant Watt Control program was run since the last reset (0)
Alpine	Number of times the Alpine program was run since last reset (0)
Rndm Prog	Number of times the Random Hill program was run since last reset (0)
UB Revs	1/40 the number times the UB motor pot has turned
Comm Lost	Number of times a Comm Lost condition has occurred. See Display Codes
Key Down	Number of times a Key Down condition has occurred. See Display Codes
Batt Low	Number of times a low battery condition has occurred. See Display Codes
Repl Batt	Number of times the need for battery replacement has occurred. See Display Codes
LED Test	Access to integral LED test function
Keypad Test	Access to integral keypad test function
Heart Rate Test	Access to integral heart rate system test function
Measurements	Access to integral measurements function
UB Calibration	Access to integral upper body system calibration function



Diagnostics - Display Codes

Display Codes

Star Trac CrossTrainers perform a self-test at the beginning of every workout. If a problem is detected, a message displays before or after the workout, depending on the nature of the problem.

Key Down – One or more keys on the display panel are stuck in the “on” position for at least 10 seconds. This can occur if a user presses keys before the system is turned on.

Comm Lost – Communication between the Load Control Board (LCB) and the display are lost. This can occur if the display cable is not connected securely at install.

Batt Low – Upper body actuator is commanded to work and the battery voltage is less than 5.7 volts.

Repl Batt – Upper body actuator is commanded to work and the battery voltage is less than 5.3 volts.



Diagnostics - LED Test

LED Test

The LED Test can be used to verify that all LED (lights) are functioning on the display assembly.

To engage the LED Test

1. Enter the Maintenance Mode (see Settings – Maintenance Mode).
2. Press  until LED Test is displayed in the information window.
3. Press  to enter the LED Test. All lights on the display should be on.
4. Check for any burned out lights.
5. To exit the LED Test, press .

If any of the LED's do not illuminate, they may not be functioning and the display electronics should be replaced.





Diagnostics - Keypad Test

Keypad Test

The Keypad Test can be used to verify that all keys are functioning on the display assembly.

To engage the Keypad Test

1. Enter the Maintenance Mode (see Settings – Maintenance Mode).
2. Press  until Keypad Test is displayed in the information window.
3. Press  to enter the Keypad Test.
4. Press each key on the display. Each time you press a key, the information window will display which key has been pressed.
5. To exit the keypad test, press .

If any of the keys do not respond, they may not be functioning and the display keypad must be replaced.





Diagnostics - Heart Rate Test, Measurements

Heart Rate Test

Heart Rate can be checked using the Heart Rate Test.

To verify heart rate operation:

1. Enter the Maintenance Mode (see Settings – Maintenance Mode).
2. Press  until Heart Rate Test is displayed in the information window.
3. Press  to enter Heart Rate Test.
4. The display will read TELEMETRY.
 - a. If checking contact heart rate it will read “CONTACT” and the heart rate number.
 - b. If checking Polar, the display will read “TELEMETRY” and the heart rate number.
5. To exit the heart rate test, press .

Measurements Mode

Measurements can be done to verify the voltage of the battery, and the UB motor's position voltage feedback*.

To verify the battery voltage:

1. Enter the Maintenance Mode (see Settings – Maintenance Mode).
2. Press  until Measurements is displayed in the information window.
3. Press  to enter Measurements.
4. The display will read “BATT VLT = ” and the voltage of the battery.
5. Press “1” to switch to upper-body motor voltage display.
6. The display will read “UB VOLTS = ” and the voltage denoting the position of the UB motor.
7. To view motor voltage again, press “0”.
8. To exit the measurements, press .

*Elite model only.

Diagnostics - UB Calibration

UB (Upper Body) Calibration (Elite Only)

The UB Calibration will set the minimum and maximum range of the upper body arms in which they can move within. You can do a Manual Calibration or an Auto Calibration. Auto Calibration is recommended.

To calibrate the Upper Body:

1. Enter the Maintenance Mode (see Settings – Maintenance Mode).
2. Press  until UB Calibration is displayed in the information window.
3. Press  to enter UB Calibration Mode.

Manual Calibration

1. For Manual Calibration press 1.
2. Press the  until the upper body arms stop moving (None Position), and then press  to save.
3. Press the  until the upper body actuator stops, and then press the  to save.

Auto Calibration

For Auto Calibration press 2. The display will automatically raise the arms up, then bring them back down to calibrate the positions.

Trouble Shooting - Incorrect Model Setting

The display electronics on the CrossTrainer can be configured to operate with many different models of Star Trac products. For them to operate properly, the correct model must be set in the Maintenance mode.

If the correct model is not set, the following may happen:

- When the unit is powered up, the display will read “Pro Bike” (or Pro Stepper) in the level profile window.
- The display will read “Start Pedaling” or “Start Stepping” instead of “Start Striding”.
- Also, some programs will not work when the keys are pressed. i.e. When pressing the Total Body program key, Warm Up program will start.

If you experience any of these symptoms, engage the Maintenance mode to correct the Model setting.

Engaging Maintenance Mode

1. Press and hold the ,  and  keys together.
2. A beep will sound and the “MAINTENANCE MODE” will display momentarily in the information window.
3. Release all keys. “SERIAL NO XXXXX” will display in the information window.
4. Press the  until the display reads “Model”.
5. Press the  until the correct setting shows.
 - Pro CT = CrossTrainer Pro which has fixed upper body mechanism.
 - Elite CT = CrossTrainer Elite which has the adjustable upper body mechanism.
6. Press  to save the setting and exit the maintenance mode.
7. Test for functionality.

Trouble Shooting - Noises : Pinging

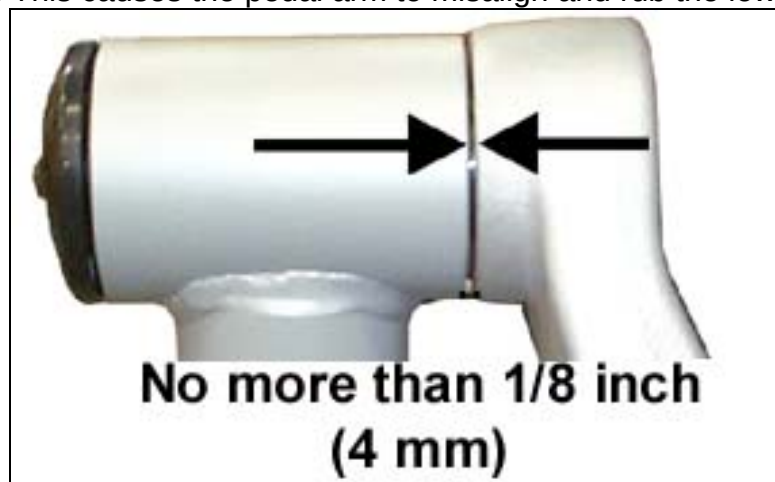
While striding on the Star Trac CrossTrainer, a pinging (metal on metal) noise is heard.

Possible Causes:

- The pin has come loose on the upper crank arm.
- Not enough clearance between the lower crank disk and the bolt on the end of the pedal arm.

Check the Upper Crank arm/Pin

1. Check the gap between the crank arm and leg assemblies (right and left). There should be no more than 1/8 inch (4 mm) gap.
2. If there is more than 1/8 inch (4 mm) gap, replace the crank arm (721-0109). The pin has come loose and shifted. This causes the pedal arm to misalign and rub the lower crank disk.



If the gap between the crank arm and leg assemblies is correct then check the gap between the lower crank disk and the end of the pedal arm.

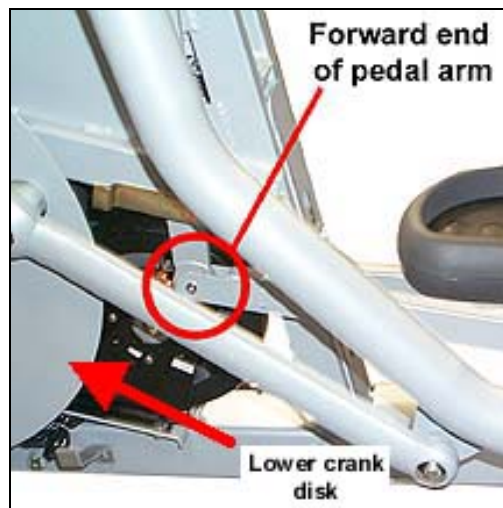
Checking Crank Disk and Pedal Arm Gap

1. Remove the center shroud cover.



Trouble Shooting - Noises : Pinging (cont.)

2. Have someone ride the unit and verify where the contact between the pedal arm and the disk is occurring.
3. If the head of the bolt in the forward end of the pedal arm is hitting the disk, you may be able to adjust the position of the bolt by twisting the arm to eliminate the noise.



4. Use the largest adjustable end wrench (crescent wrench) to twist the base of the pedal arm.
 - Place a piece of paper over the pedal arm, to prevent scratching it with the wrench, just in front of the foot pedal but before the upward bend.
 - Slide the wrench over the paper and all the way down on the pedal arm. Be sure the handle of the wrench points toward the middle of the machine.
5. Carefully push down on the handle of the wrench to twist the pedal arm, moving the top of the pedal arm and the bolt head away from the disk. You may need to use a breaker bar on the handle of the wrench to get more leverage.





Trouble Shooting - Noises : Pinging (cont.)

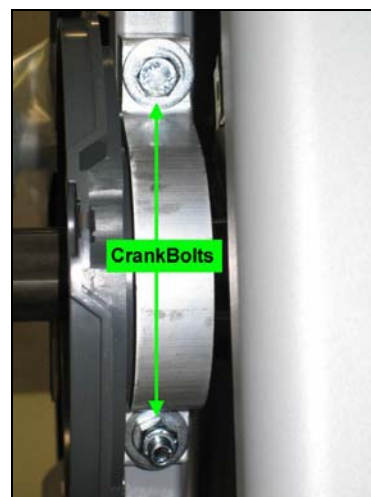
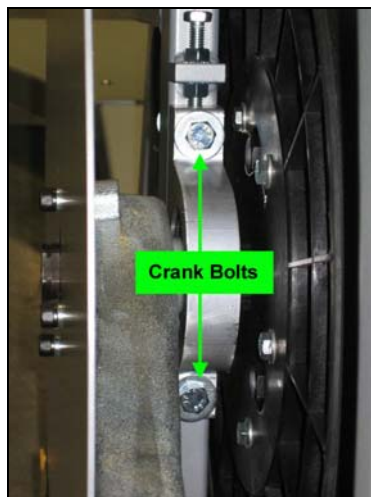
6. Test ride the machine again to confirm that the problem has been fixed. Jump slightly from side to side as you pedal to be sure the pedal arm is adjusted correctly.
7. Replace the rear center shroud cover.

Trouble Shooting - Noises : Bearings

If the Star Trac CrossTrainer makes a squeaking or grinding bearing noise while striding, this process will help determine if the noise is caused by a bearing.

Check Pillow Block Bolts

1. Use two 9/16 wrenches (or socket) to verify that all 4 bolts and nuts on the upper and lower crank assemblies are tight.

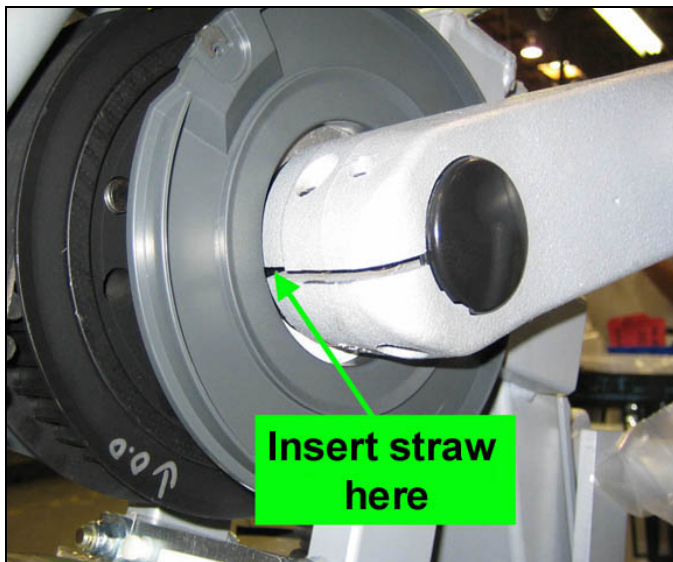


2. If the bolts are loose, tighten them and check to see if the noise has been eliminated.
3. If the noise continues, proceed with checking the bearings.

Trouble Shooting - Noises : Bearings (cont.)

Upper Crank Bearings

1. Insert the straw of the lube can into the slit on the upper crank arm. Be sure to insert the straw all the way so you are hitting the inner race of the bearing.

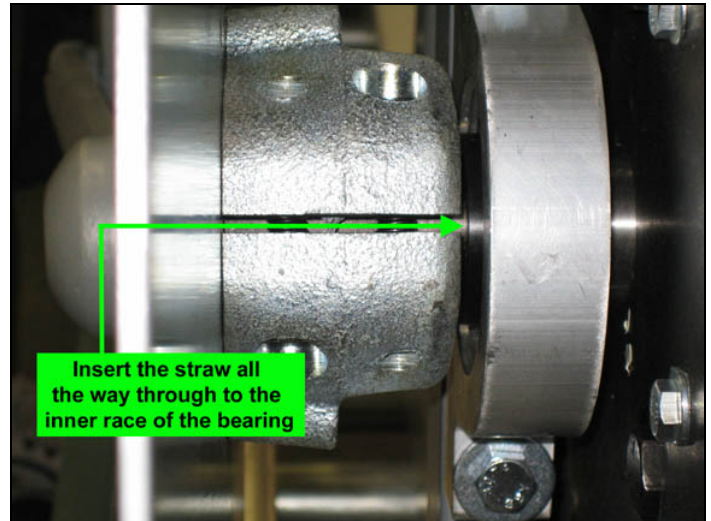
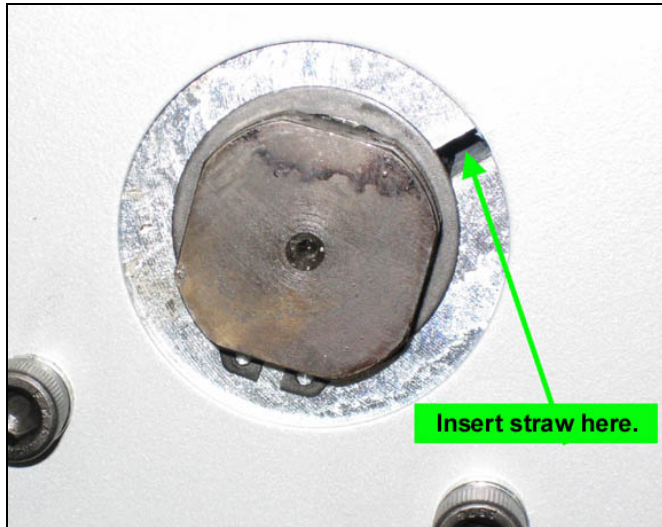


2. Spray the lube then test the CrossTrainer to see if the noise has disappeared. If the noise remains, lubricate the other crank bearing. If the noise goes away, then the bearing is the cause and the upper crank assembly should be replaced (part number 721-1057).

Lower Crank Bearings

1. Remove the lower disk cap.
2. Insert the straw of the lube can into the slit on the lower crank arm through the lower crank disk. Be sure to insert the straw all the way so you are hitting the inner race of the bearing.

Trouble Shooting - Noises : Bearings (cont.)



3. Spray the lube then test the CrossTrainer to see if the noise has disappeared. If the noise remains, lubricate the other crank bearing. If the noise goes away, then the bearing is the cause and the upper crank assembly should be replaced (part number 721-0121).

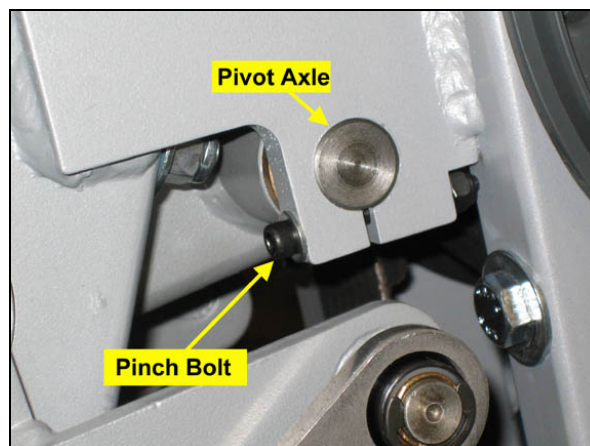
Trouble Shooting - Excess Lateral UB Arm Movement

The Upper Body Arms on the Star Trac CrossTrainer should have little to no lateral movement (side to side).



If a CrossTrainer has excessive lateral movement do the following.

1. Remove the Upper Body shrouds.
2. Use a 5/32 Allen (hex) wrench and a 3/8 open end wrench to tighten the pinch bolts on the upper body pivot axle. Tighten both bolts.



3. Test to ensure there is no longer excessive lateral movement.

Part Installation Procedure - Shrouds

Parts Needed:

- UB Shroud Lt (721-1075-01)
- UB Shroud Panel Lt (721-1074-01)
- Lower Shroud Lt (721-1072-01)
- UB Shroud Rt (721-1075-02)
- UB Shroud Panel Rt (721-1074-02)
- Lower Shroud Rt (721-1072-02)

Tools Needed:

- 3/32 (Allen) Hex Key
- 5/16 (Allen) Hex Key
- Phillips Head Screwdriver
- Flat-Head Screwdriver

Procedure:

Remove the Upper Body Shroud

1. Using the 3/32 inch Allen (hex) key, remove the 6 screws from the left upper body shroud panel..



2. Carefully remove the UB shroud panel from the frame. Utilize the slit in the panel to remove completely and set aside.



Part Installation Procedure - Shrouds (cont.)

3. Use the Phillips screwdriver to remove the 5 UB shrouds screws.
4. Slide the shroud off the frame.
5. Repeat step 1-4 on the right UB shroud panel.



Remove the Lower Body Shroud

1. Use the 5/16 Allen (hex) key to remove the bolt holding the lower linkage arm to the crank.



Note: Weight and movement of leg beam will force the lower linkage to move in the forward direction during removal. Either have another person hold the leg beam or pedal in position; use a block under the pedal.

2. Use the Phillips screwdriver to remove the 2 screws holding the center shroud cover.



Part Installation Procedure - Shrouds (cont.)

3. Use the Phillips screwdriver to remove the 7 screws from the lower shroud.



4. Remove the plastic cap from the metal guard disk, using the flat-head screwdriver.
5. Use the 1/4 Allen (hex) key to remove the 3 screws on the guard disk. Remove disk.



6. Repeat step 1-5 on the other side.
7. Installation is reversal of removal.

Part Installation Procedure - Keypad

Parts Needed:

- Keypad Overlay (050-1923)

Tools Needed:

- Phillips Screwdriver

Procedure:

Remove the Old Keypad

1. Remove the back display housing.
 - Remove the 7 screws from the back of the display housing
 - Pull the back housing off display.
2. Remove the fan bracket.
 - Remove the 4 screws from the fan bracket.
Note: Before removing the last screw, be sure to have a hold of the fan bracket. The fan wire will still be connected to the display electronics.
 - Carefully unplug the fan. Do not tug aggressively or you may pull the connector from the display.



3. Remove the display electronics.
 - Unplug all the cables from the back of the display.
 - Remove the 5 screws that are holding the electronics to the display panel. Set the electronics aside.

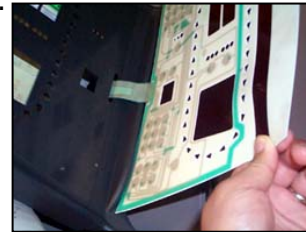
Part Installation Procedure - Keypad (cont.)

4. Remove the old keypad.
 - Gently push from behind one corner of the information window until it comes loose from the display panel.
 - Carefully peel away the old keypad.



Install the New Keypad

1. Prep the keypad. Clean off excess adhesive on the display panel water and soap.
2. Install the new keypad onto the display panel.
 - Remove the protective paper from the back of the keypad to expose the adhesive.
 - Slide the keypad ribbon cable through the display panel.



- Carefully line up the keypad with the housing.
- Once it is lined up, press the keypad in place. Firmly rub the keypad to ensure the entire adhesive is making contact with the display panel.

Note: If the keypad is not properly lined up with the display panel, some of the lights may not be visible.

3. Install the display electronics.
 - Carefully pull the keypad ribbon cable through the hole on the display electronics.
 - Install the 5 screws that hold the display electronics to the panel.
 - Plug the cables into the electronics. Be sure to plug all cables in.



4. Install the fan bracket onto the display housing.
 - Plug the fan cable into the display electronics.
 - Align the fan with the fan vent in the display panel.
 - Install the 4 screws for the fan bracket.
5. Install the back housing.
 - Align the back housing to the display and install the 7 screws that hold the housing to the panel.

Test for Function

1. Ensure all keys are functional by using the Keypad Test in the Maintenance mode.
2. Be sure all lights are visible by using the LED Test in the Maintenance mode.

Part Installation Procedure - LCB, Batt. And UB Board

The following procedure will cover the process for replacing the Load Control Board, battery or Upper Body Electronic Board (Star Trac CrossTrainer Elite only).

Parts Needed:

- Load Control Board (721-1045)
- Battery (580-0305)
- Upper Body Controller – Elite only (721-1044)

Tools Needed:

- Short Phillips Head Screwdriver
- 1/8 inch (Allen) Hex Key
- Phillips Head Screwdriver

Procedure:

Remove the Upper Body Shroud Panel

6. Using the 3/32 inch Hex key, remove the 6 screws from the right upper body shroud panel.
Note: If you are replacing the upper body board, remove the left shroud panel.



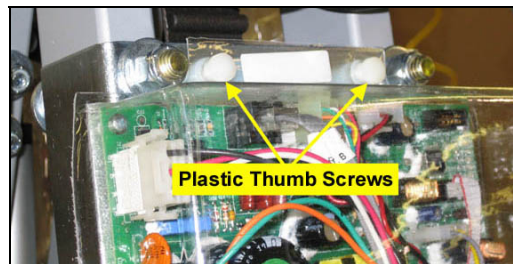
7. Carefully remove the UB shroud panel from the frame. Utilize the slit in the panel to remove completely and set aside.



Part Inst. Procedure - LCB, Batt. And UB Board (cont.)

Remove the LCB Plastic Shield

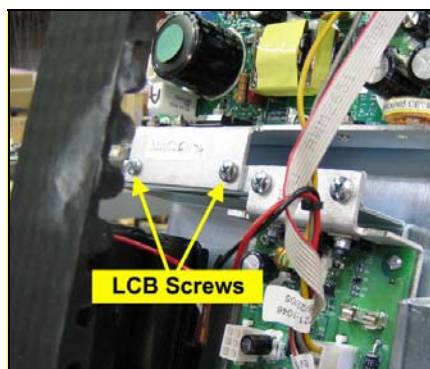
1. Turn the two plastic thumb screws to loosen the top of the LCB shield. Note: There is a thumb screw on the bottom of the shield but it may not be necessary to loosen it to service the LCB.



LCB Replacement

Remove the Old LCB

1. Unplug all 6 (7 for Elite) cables from the LCB.
2. Use the short Phillips head screwdriver to remove the 2 screws holding the LCB to the frame. Note: Be careful not to drop the screws in the frame.



Install the New LCB

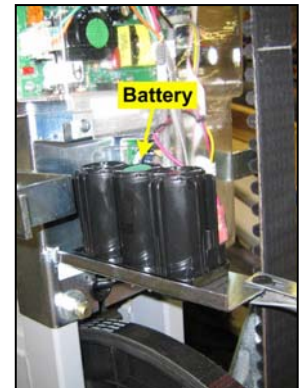
1. Place the new LCB in the frame.
2. Use the short Phillips head screwdriver to install the 2 screws to hold the LCB to the frame.
3. Plug in all cables to the LCB.
4. Before installing the UB shroud panel, test for functionality.

Part Inst. Procedure - LCB, Batt. And UB Board (cont.)

Battery Replacement

Remove the Old Battery

1. Use the Phillips head screwdriver to remove the 4 screws holding the battery to the frame.
2. Unplug the wires from the battery and set the old battery aside.



Install the New Battery

1. Before installing the new battery, use a multi-meter to check the voltage.
 - New unused batteries should be 6.3 volts or above.
 - A battery with a marginal charge will be between 6.0 and 6.2 volts.
 - If the battery is less than 6.0 volts, do not install. Obtain a new battery.
2. Plug the wires into the new battery.
 - Red wire plugs into the positive (+) of the battery
 - Black wire plugs into the negative (-) of the battery.

Note: Incorrect wiring of the battery may cause damage to the system.

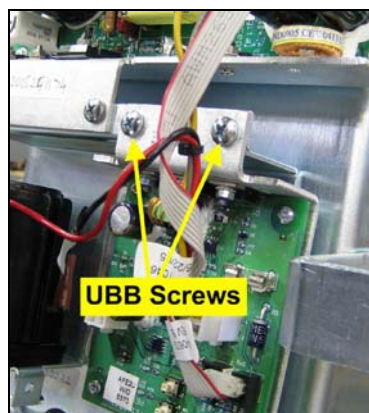


Upper Body Electronic Board Replacement (Elite Only)

Remove the Old UB Board

Note: Accessing the UB Board is easier if you remove the left shroud panel.

1. Unplug the 2 wires from the UB board.
2. Use the short Phillips head screwdriver to remove the 2 screws holding the UB board to the frame.





Part Inst. Procedure - LCB, Batt. And UB Board (cont.)

Install the New UB Board

1. Use the short Phillips head screwdriver to install the two screws to hold the UB board to the frame.
2. Connect the two wires to the board.
3. Before installing the UB shroud panel, test for functionality.

Reinstall the LCB Plastic Shield

1. Position the LCB Shield over the electronics and align the holes for the plastic thumb screws.
2. Tighten the screws.

Reinstall the Upper Body Shroud

1. Carefully reinsert the upper body shroud onto the frame.
2. Reinstall the 6 screws that hold the UB shroud to the unit.

Part Installation Procedure – Upper Crank Arm

Parts Needed:

- Crank Arm (721-0109) Note: They are ordered individually and you may need two.

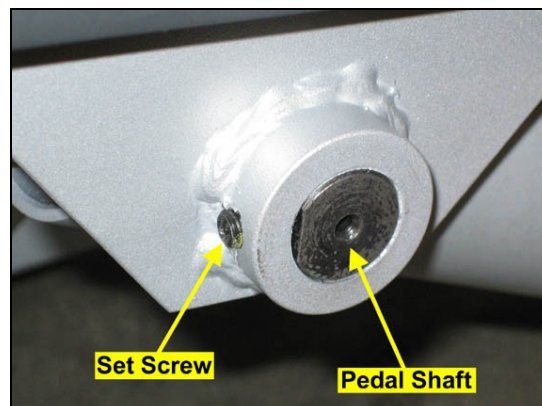
Tools Needed:

- 3/16 (Allen) Hex Key
- Torque Wrench (foot pounds)
w/5/16 (Allen) Hex Driver
- Large Flat-Head Screwdriver
- 1/8 (Allen) Hex Key
- 5/16 (Allen) Hex Key
- 3/4 inch Cold Chisel
- Short Punch

Procedure

Remove the Upper Crank Arm

1. Using a 1/8 (Allen) hex key, loosen both of the sets screws on the pedal shaft, under the pedal pad.
2. Using the short punch (or socket), gently tap the shaft into the pedal base until it is clear of the collar on the outside.

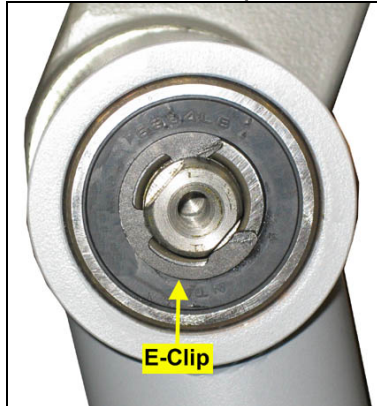


3. Remove the plastic cap from the end of the leg beam bearing housing.

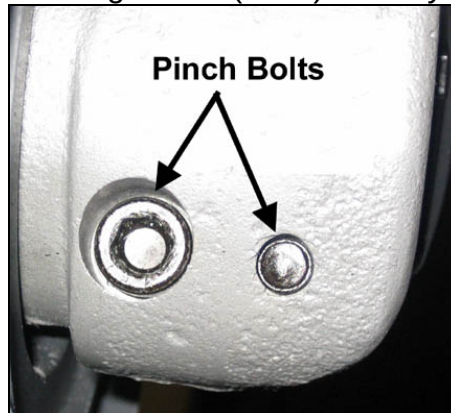


Part Installation Procedure – Upper Crank Arm (cont.)

4. With one hand cupped over the e-clip, use a flat-head screwdriver to pop the e-clip off the upper crank pin. Be careful not to lose the e-clip.

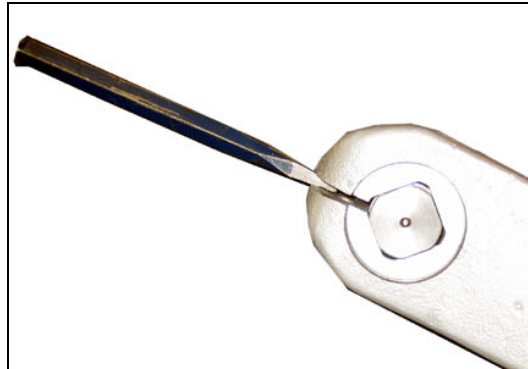


5. Carefully slide the leg beam off of the upper crank pin. You may want to use your foot to support the lower end of the leg beam as you pull. Remove the shims and wavy washers from the crank pin and set them aside for re-use.
6. Remove the plastic cap and retaining ring from the center of the upper crank arm. Completely remove both of the pinch bolts using a 5/16 (Allen) hex key.



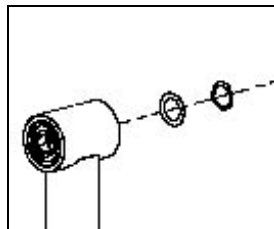
7. Insert a $\frac{3}{4}$ inch cold chisel or a large flat-head screwdriver in the slot in the end of the upper crank arm and tap with a hammer to slightly spread open the end of the crank arm. The crank arm should easily slide off the main shaft assembly.

Part Installation Procedure – Upper Crank Arm (cont.)



Install the New Upper Crank Arm

1. Insert a $\frac{3}{4}$ inch cold chisel or a large flat-head screwdriver in the slot in the end of the new upper crank arm and tap with a hammer to slightly spread open the end of the crank arm. The crank arm should easily slide on the main shaft assembly.
2. Insert and tighten the two pinch bolts to 60 ft-lbs with torque wrench and 5/16 hex driver.
3. Replace the retaining ring and plastic cap.
4. Slide the shim and wavy washer onto the upper crank pin. Then slide the leg beam bearing housing on the upper crank pin.



5. Replace the e-clip and plastic cap.
6. Tap the pedal pin back into position in the pedal base. Be sure to align the flat on the shaft to the set screws.
7. Tighten the set screws.
8. Test for functionality.



CrossTrainer Parts List

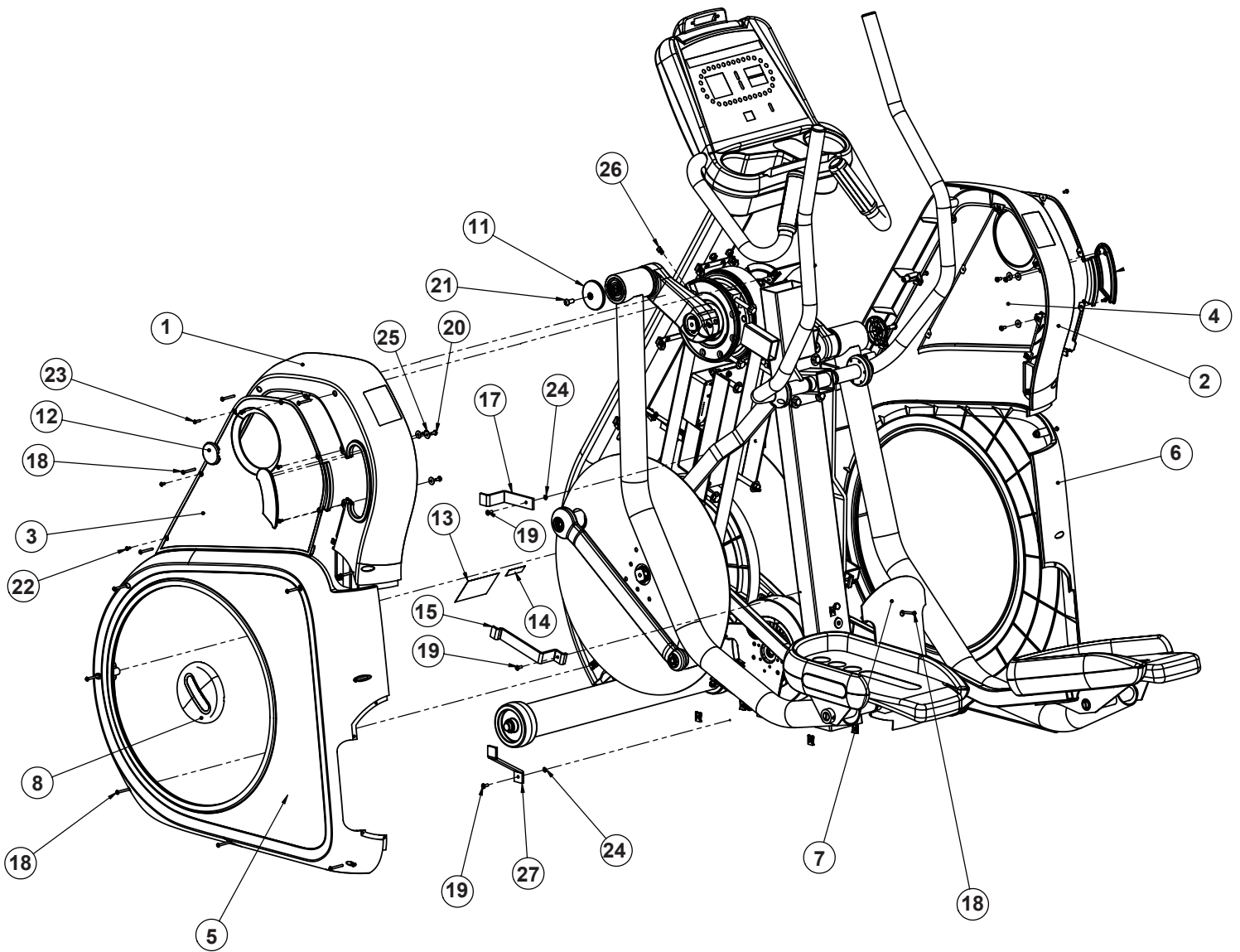
Pro CrossTrainer Elite CrossTrainer





CrossTrainer

Shrouds





CrossTrainer Part List

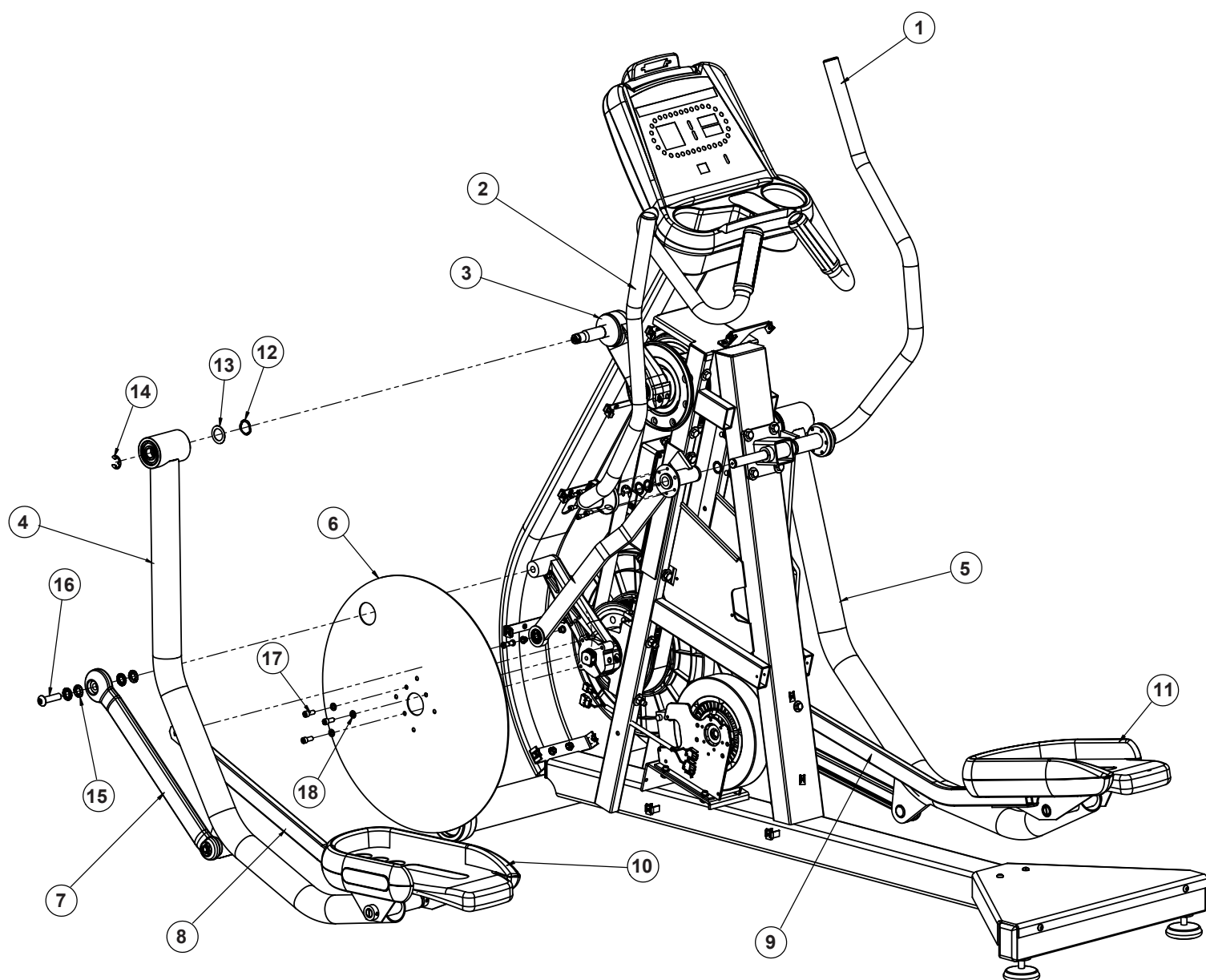
Shrouds

1	721-1075-01	Assy, Shroud Top, Lf, EI6100
2	721-1075-02	Assy, Shroud Top, Rg, EI6100
3	721-1074-01	Assy, Shoud Panel, Lf, EI6100
4	721-1074-02	Assy, Shoud Panel, Rg, EI6100
5	721-1072-01	Assy, Shroud Lower, Lf, EI6200
6	721-1072-02	Assy, Shroud Lower, Rg, EI6200
7	020-6633	Shroud, Center Cover, EI6200
8	721-1081	Assy, Disc Cap, EI6200
11	140-3301	Cap, Leg Axle Housing, EI6200
12	140-3300	Cap, Upper Crank, EI6200
13	050-1816	Label, Id Plate
14	050-1956	Label, Patents, EI6100 & 6200
15	020-6818	Bracket, Shroud-1, EI6200
17	020-6821	Bracket, Shroud-4, EI6200
18	110-0286	Screw, #8-18x1-1/2,pht-ab,ph
19	110-3026	Screw, 10-24x3/4" Phtcs
20	110-3072	Screw, 8-32x3/8" Rhms
21	110-3298	Screw, 5/16-18x.75,bhc,he,ss
22	110-3341	Bolt, 8-32x3/8, Bhc,he,ss
23	110-3342	Bolt, 5/16-18x4-1/2 Hhc, Cs, Z
24	120-0220	Washer, #10 Ext Tooth
25	120-3295	Washer, #8, 0.625" Od, Zp
26	140-3314	J-nut, 8-32



CrossTrainer

Outer Mechanical





CrossTrainer Part List

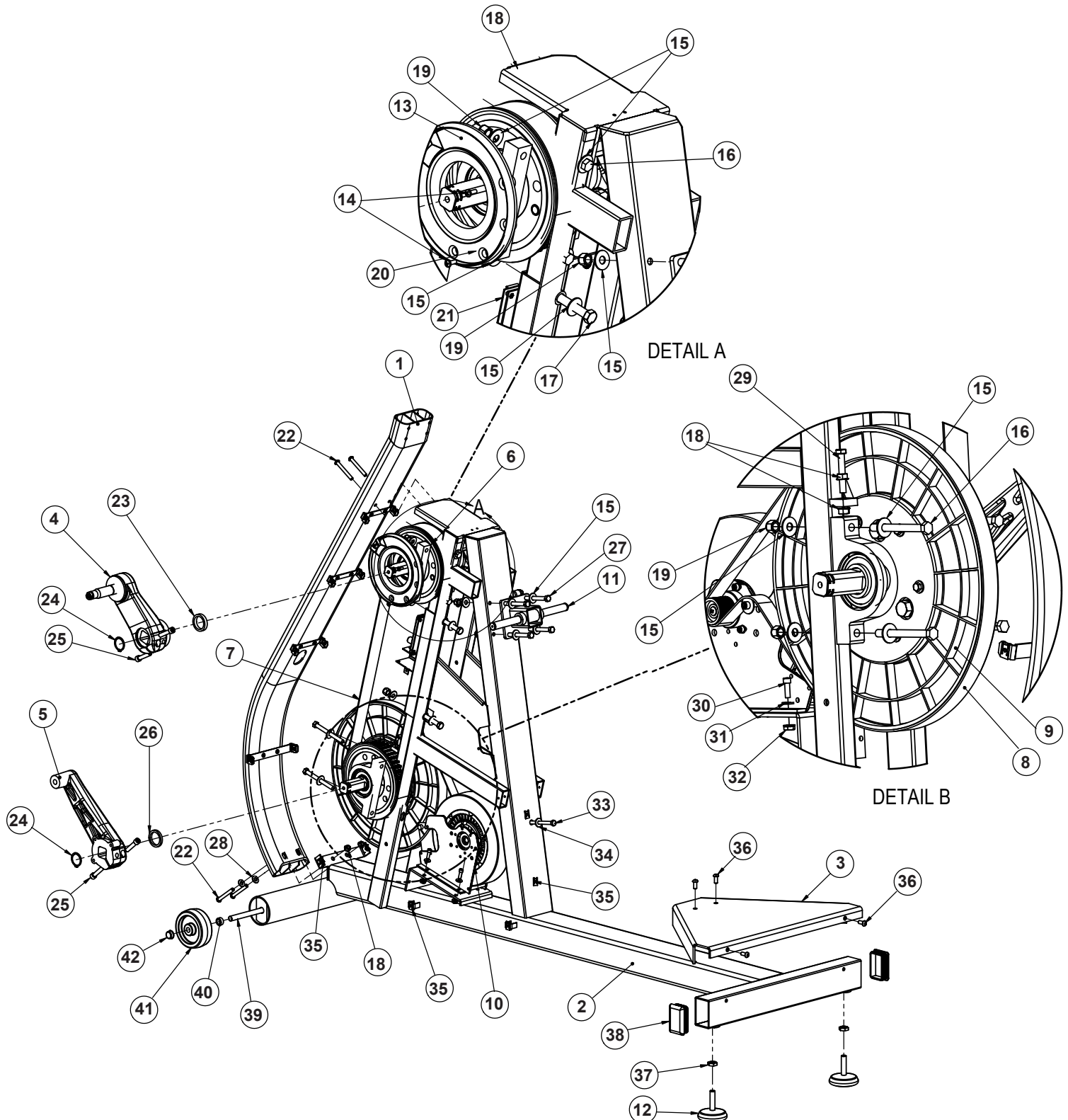
Outer Mecahnical

1	721-0135-02	Weldment, Arm, Right, Ub
2	721-0135-01	Weldment, Arm. Left, Ub
3	721-0109	Assy, Crank Upper Arm, El6200
4	721-0128-01	Assy, Leg, Left, El6200
5	721-0128-02	Assy, Leg, Right, El6200
6	020-6623	Guard, Disk Plate, El6200
7	721-0126	Assy, Lower Linkage, El6200
8	721-0114-01	Weldment, Pedal Base,lf,el6200
9	721-0114-02	Weldment, Pedal Base,rg,el6200
10	721-0130-01	Assy, Shoe, Left, El6200
11	721-0130-02	Assy, Shoe, Right, El6200
12	120-0510	Washer, 1.0"
13	120-0411	Washer, 1.0"
14	140-0940	E-clip 3/4"
15	120-3293	Washer,locking,nord-lock 1/2"
16	110-3291	Screw, 1/2-13-1.5,bhc,he,ss
17	110-3290	Screw, 5/16-18 X .50, Shcs
18	120-0495	Washer, 5/16" Cut



CrossTrainer

Pro Frame/Inner Mechanical





CrossTrainer Part List

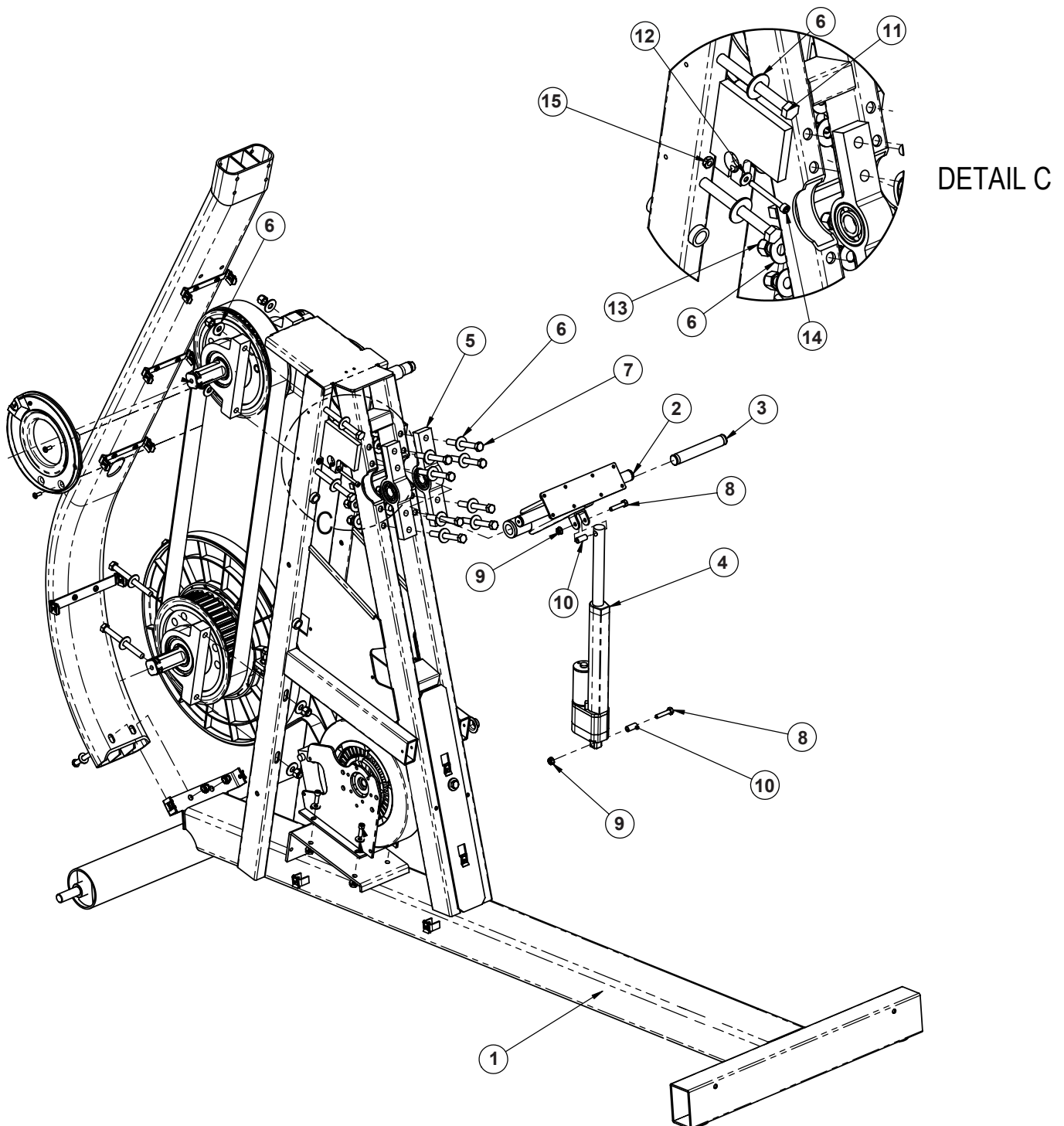
Pro Frame/Inner Mechanical

1	721-0118	Assy, Display & Neck, EI6200
2	710-1044	Frame. Finished, Front, EI6100
3	020-6577	Tube, Adjustment, Base
4	721-0109	Assy, Crank Upper Arm, EI6200
5	020-6566	Crank, Arm 8.7", EI6200
6	721-1057	Assy, Upr Pulley-crank, EI6200
7	130-1714	BELT, TIMING HT,1890-14M-40XP
8	130-1732	Belt, 580j10, Poly Vee
9	721-0121	Assy, Lwr Pulley-crank, EI6200
10	260-0937	Generator, Brake W/pulley
11	721-1055	Assy, Pivot Point, EI6100
12	140-3200	Adjustable Foot, 1/2-13x3.0"
13	020-6743	Shroud, Upper Disc, Crank Cove
14	110-3026	Screw, 10-24x3/4" Phtcs
15	120-0463	Washer, 3/8x1.0" Flat
16	110-0601	Screw, 3/8-16x4.0" Hhcs
17	110-3303	Bolt, 7/16-14x3-1/4,shc,he,g8
18	110-1870	Nut, 5/16-18
19	110-1830	Nut, 3/8-16 Hex, nyloc
20	110-3304	Nut, 7/16 Locknut, Nylon
21	721-1082	Assy, Elect. & Plate, EI6200
22	110-3292	Screw, 5/16-18x2.5,bhc,he,ss
23	120-3279	Spacer, 1-3/8x1-3/4x.340, Nylo
24	140-3309	Ring, Retaining, Ext, 1.250"
25	110-3297	Bolt, 3/8-16x1.75, Shc,hk,cs,b
26	120-3294	Spacer, 1-3/8x1-3/4x.220, Nylo
27	110-3312	Screw, 3/8-16x3.25,hhc,he,cs,z
28	120-3278	Washer, 5/16x.50, Ss
29	110-0686	Bolt, 5/16-18x2.0" Hhcs all Thd
30	110-0490	Bolt, 1/4-28x3/4,shc,he,cs,zi
31	120-0410	Washer, 1/4" Flat
32	110-3301	Nut, 1/4-28, Hex Serrated-flan
33	110-3343	Bolt, 5/16-18x4.5,hhc,cs,zp
34	120-0480	Washer, 5/16" Cut
35	140-3323	U-nut, #8, Panel .025-.125
36	110-3298	Screw, 5/16-18x.75,bhc,he,ss
37	110-1823	Nut, 1/2-13x5/16" Jam
38	140-3140	Endcap, 2x2"
39	721-1085	Weldment, Axle, W/moment Reduc
40	020-6815	Spacer, Plastic, 1.0x1.25x.85
41	130-1736	Wheel, 4.0"od X 0.625" Bore Of
42	110-1415	Axle Push Cap, 1/2"



CrossTrainer

Elite Inner Mechanical



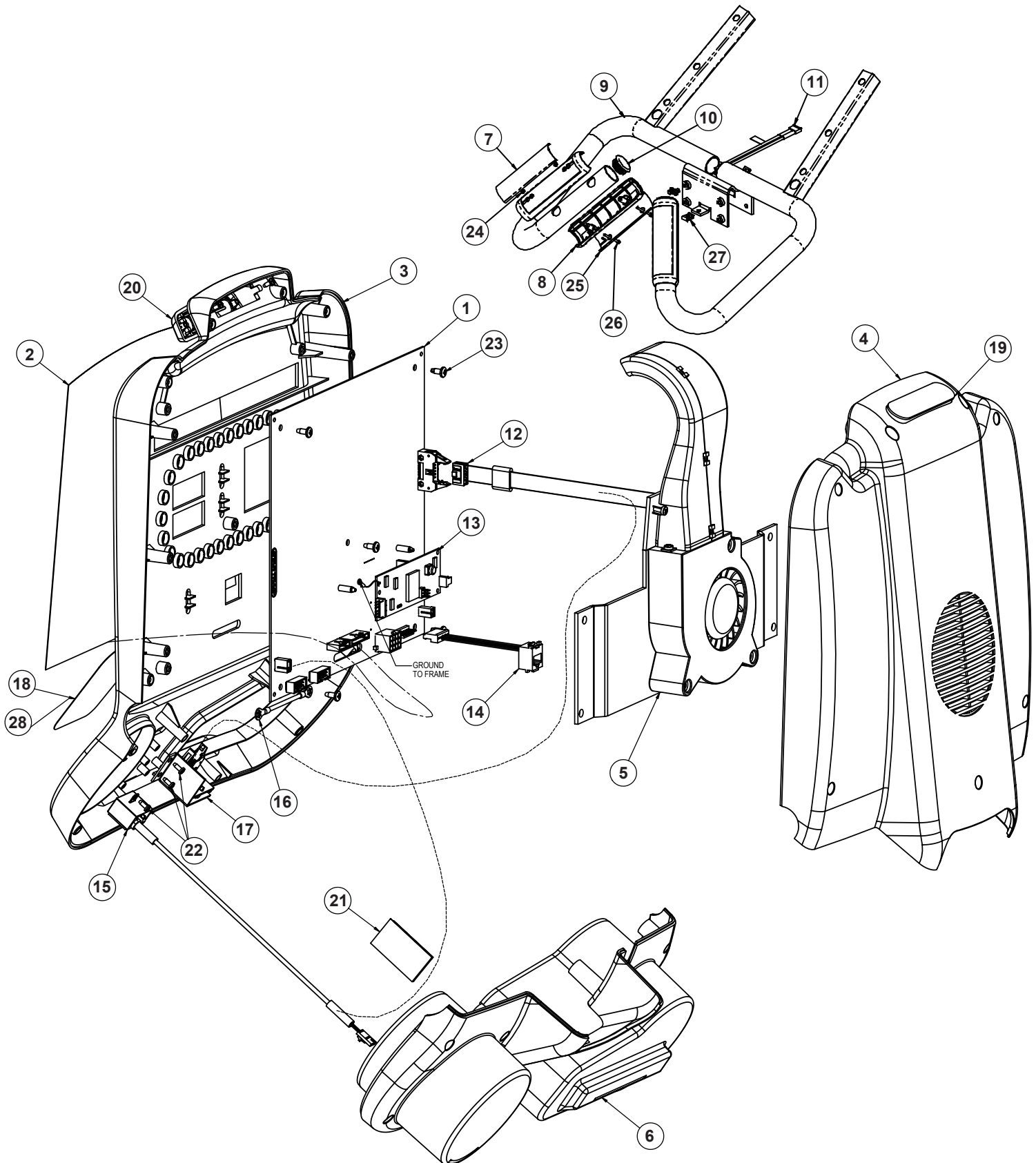


CrossTrainer Part List

Elite Inner Mechanical

2	721-1039	Assy, Pivot, Upper, EI6200
3	020-6642	Shaft, Axle, Pivot, Arm
4	260-0936	Actuator, Screw, EI6200
5	721-1062	Assy, Pillowblock,
6	120-0463	Washer, 3/8x1.0" Flat
7	110-3312	Screw, 3/8-16x3.25,hhc,he,cs,z
8	110-0575	Screw, 1/4-20x1.25,hhc,he,cs,z
9	110-1810	Nut, 1/4-20 Kep
10	020-6634	Base, Pedal Side Logo, EI6200
11	110-0601	Screw, 3/8-16x4.0" Hhcs
12	120-0341	Washer, #10 Flat Sae
13	110-1830	Nut, 3/8-16 Hex, nyloc
14	110-3311	Screw, 10-32x1.75,shc,he,cs,bo
15	110-3314	Nut, 10-32, Nyloc

Display Assembly





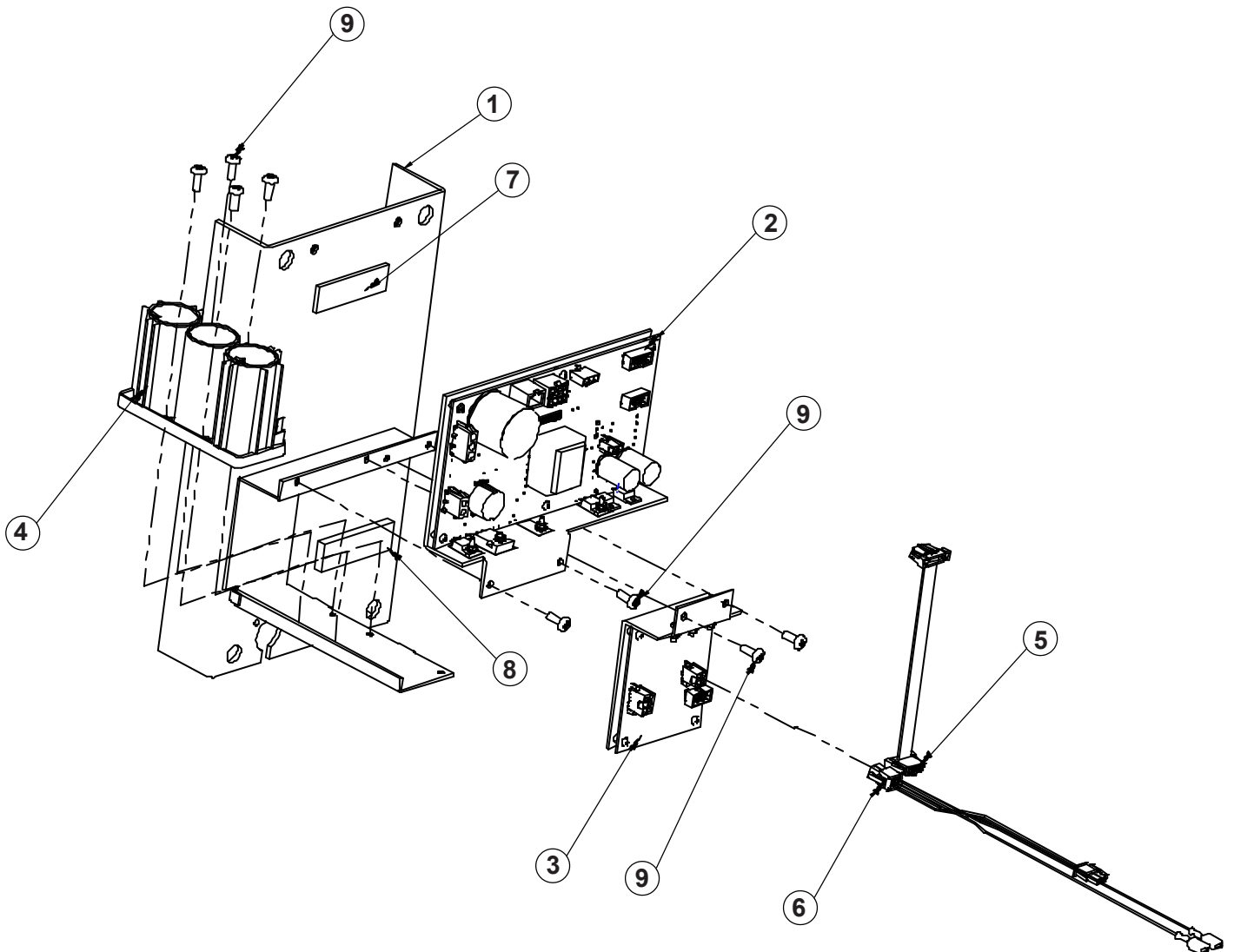
CrossTrainer Part List

Display Assembly

1	718-1108	Disp Elec, PB6k
2	050-1923	Keypad, Display, Engl, EI6200
3	020-6413	Disp Housing, Front, PB6k
4	020-6411	Disp Housing, Back, PB6k
5	720-5068	Assy, Fan W/bracket,pro Bike
6	020-6416	Disp Housing, Bottom, PB6k
7	020-6555	Plate, Hr, Universal, Top
8	020-6556	Grip, Hr, Universal, Black
9	721-0112	Weldment, Handlebar, EI6200
10	140-3264	Cap, Plug,31.75mm Od X 14-20ga
11	721-0069	Cable, Grips-Hr Brd
12	718-1116	Harness Assy, IR
13	718-1129	Pcb, Hr Contact, Ub/rb Pro
14	721-0033	Phone Jack Assy, C-Safe, NR-BK
15	800-3961	Cable Assy, Polar Rcvr
16	721-1065	Assy, Harness, Ground, EI6200
17	718-5062	IR Assy
18	050-1932	Label, Info Center, Universal
19	050-1887	Label, Logo, ST, Pro Bike
20	718-1107	Air Vent Assy
21	020-6460	Window, Ir Reader
22	110-3163	Screw, M3x0.5x8 Pht, ph, cs, zi
23	110-3252	Screw, M4x0.7x10l,pht,ph,cs,bo
24	110-3148	*Use Kit # 800-3904
25	020-6549	Plate, Hr, Bottom
26	110-3147	*Use Kit # 800-3904
27	140-3149	Tinnerman Clip, #10 nut
28	050-1924	Keypad, Upper Body, EI6200



CrossTrainer Control System





CrossTrainer Part List

Control System

1	020-6766	Plate, Front Bolted, EI6200
2	721-1045	Assy, Lcb W/heatsink, Ub/rb/el
3	721-1044	Assy, Ub, Electronics, EI6200
4	580-0305	Battery, 6v, Ee/Nr/PB5k/6k
5	721-1049	Assy, Harness, Ub Interface
6	721-1046	Assy, Harness, Battery, EI6200
7	140-0715	Deck Foam, 1/4", p/ft, top
8	140-3324	Foam Rubber, 1/4x3/4
9	110-3026	Screw, 10-24x3/4" Phtcs